18 Control Section

Gypsy Moth Manual

Planning for Control Activities

Contents

Overview

This subsection is an overview of the steps involved in planning a control project. Include in this subsection are:

- the material needed,
- the usual procedure for control activities, and
- a typical planning calendar

Materials Needed

The following materials and supplies are usually necessary when planning a control project:

- The map showing the results of the delimiting survey
- A map for marking spray/eradication blocks (2 inches per mile or larger scale) (a topographic map (7 1/2 minute) is ideal)
- The results from egg mass surveys (and/or larval trapping?)
- Final Environmental Impact Statement (FEIS)
- Labels and MSDSs for approved insecticides (for possible insecticide use)
- Scoping list of names and addresses
- List of cooperators and telephone numbers
- Marking balloons, helium, and kite string (for possible insecticide use)
- Information on traps and lures (for possible mass trapping)

Appendixes H and I contains information on those insecticides approved for eradication projects and those approved for suppression.

Procedure for Control Activities

Following are the usual steps in planning possible control activities. The steps are mentioned then discussed in detail.

Step 1—Gather All Pertinent Data

Step 2—Meet With Cooperators

Step 3—Review Options and a Possible Recommendation for Eradication

Step 4—Hold Public Meeting(s)

Step 5—Determine Insecticide Application Method (if insecticide use)

Step 6—Write the Site-specific Environmental Assessment (EA)

Step 7—Write Letters for the Administrator's Signature

Step 8—Determine When to Begin Application

The following section will discuss these steps in detail.

Step 1—Gather All Pertinent Data

Gather data to make a preliminary determination of the area to be treated and the possible control method. Do not make a final determination until public meetings and other contacts (scoping process) is complete and Environmental Assessment (EA) is written.

The necessary data on the size of the area to be treated is based on the following factors:

- Trap data (from delimiting survey map)
- Data on other life stages (that is, data from egg mass surveys and larval trapping)
- Host availability
- Professional judgement

Using information from the delimiting survey, highlight on a map all those traps with multiple catches. Draw a line between the multiple moth catch traps on the boundary of the possible infestation. The area enclosed within the multiple catch traps roughly outlines the boundaries of the infested area. Determining the size of the infestation is also based on the data from an egg mass survey and/or larval trapping. Egg masses usually indicate the core area of the infestation. The size of the area for treatment also depends on host availability and geography as well as prevailing weather (for example, an infested hilltop may require treatment of an area due to the potential for larval dispersal by wind).

After determining the probable introduction site of the infestation, try to determine when the gypsy moth arrived. An estimate of the length of time the infestation has been present allows an estimate of how far the infestation may have spread.

The treatment area almost always is larger than the area infested, but may be smaller than the area in which male moths were caught.

NOTICE

Treating less than the infested area is only recommended where sufficient survey data is not available to determine the boundaries of the infested area.

Outline the area for treatment on a map so you can determine the total number of acres to be treated. Remember, infestations over 640 acres in size are the responsibility of Forest Service (FS) and individual States to eradicate. Infestations found on Federal land or land contiguous to Federal land is the responsibility of FS to eradicate. See **Table 18-1** for determining responsibility for eradication.

Step 2—Meet With Cooperators

For each State, a committee consisting of a representative from at least the State, FS, and PPQ should exist. The PPQ Plant Health Director (PHD) will take the lead in arranging meetings. Determine which agency will lead the project. Use the table below to determine who is responsible for eradication costs.

TABLE 18-1: Responsibility for Eradication Costs

If the infestation is:	And the infestation is:	Then:
On Federally owned land	→	FS funds the treatment
On land contiguous (next) to Federally owned land	→	FS and State share the costs of treatment (50 percent FS/50 percent State)
On non–Federally owned land or not contiguous to Federally owned land	641 acres or greater	
	640 acres or less	APHIS and State share the costs of treatment (50 percent APHIS/50 percent cooperator)[1]

1 May not always be possible to meet this proportion exactly.

Step 3—Review Options and a Possible Recommendation for Eradication

During a meeting with all cooperators, review the FEIS for its alternatives. Select the preferred option based on the nature of the infestation, its density, and its size. The four alternatives listed in the FEIS are:

- No action
- Chemical insecticide treatment
- Biological insecticide treatment
- Integrated Pest Management

FEIS Alternatives

The preferred method of treatment (as stated by the FEIS) is Integrated Pest Management. Prepare to discuss all alternatives considered at future public meeting (as well as any subsequent site-specific Environmental Assessment). Include "No Action" as an option for consideration.

For additional information on the approved methods for eradication, see **Appendix I** - Methods for Gypsy Moth Eradication.

Step 4—Hold Public Meeting

To comply with NEPA, hold a public scoping meeting (1) to provide for public input on issues and concerns and (2) to limit the scope of the analysis to be provided by the EA. The purposes of the public scoping meeting are (1) to get public involvement in the decision-making process, (2) to identify issues of concern, and (3) to provide information on the various options and their consequences.

For information on holding public meetings, see **Appendix K** - Public Meetings/Public Relations.

Step 5—Determine Insecticide Application Methods

If proposing the use of an insecticide (or insecticides), address the specific selection for the project in the site-specific Environmental Assessment. When selecting insecticides, consider the following factors:

- Project objectives
- Environmentally sensitive sites in the proposed treatment area (for example, the presence of endangered species in the infested area)
- Biological efficiency of the insecticide (or insecticides)
- Economic efficiency of the insecticide

In addition, any selected insecticide must meet the following criteria:

- The insecticide must be registered with the Environmental Protection Agency for use against gypsy moth
- The insecticide must have a method of application which conforms with label specifications
- The insecticide must be approved for use in the FEIS

Most insecticides will be applied aerially using fixed wing aircraft or helicopters. Use only aircraft that are highly maneuverable and can operate at low air speeds close to the tree canopy.

Where aerial applications are not appropriate, use ground treatments. Ground treatments are more costly and should only be used to treat small, localized infestations. Ground spraying is difficult, especially when treating tall, mature trees. Contact the Otis Methods Development Center if you are considering ground application.

Step 6—Write the Site-Specific Environmental Assessment (EA)

An eradication project requires a site-specific Environmental Assessment (EA). In most States, the State agency involved in the eradication effort will prepare or will help prepare the EA.

For information on how to prepare an EA, see **Appendix J** - Guidelines for Environmental Documents.

Step 7—Write Letters for the Administrator's Signature

(If an insecticide is to be used?) Forty-five days before the beginning of (an insecticide?) the treatment, write a Finding of No Significant Impact (FONSI) (and a Record of Decision (ROD) letter?) using the examples in **Appendix J**. Mail the FONSI and ROD to USDA-APHIS-PPQ, 4700 River Road, Unit 141 (?), Riverdale, MD. In the FONSI, address the specific treatment to be used.

Step 8—Determine When to Begin Application

To decide when to start an insecticide treatment, the preferred method is to use egg hatch. Monitor a caged egg mass to see when eggs begin to hatch. When larvae are found, monitor their size to establish their stage of instar development. Begin treatment when second instar larvae begin to appear.

Information on gypsy moth larval instars is at the following website:
http://www.fs.fed.us/na/morgantown/fhp/palerts/instars/instars.html

Use the following guides to establish the stage of instar development.

TABLE 18-2: Characteristics of Gypsy Moth Instars

	CHARACTERISTICS		
Instar	**Body Color**	**Head Capsule Color**	**Size**
1st	Buff-color at hatching Black, usually greasy before molt	Black	3–5 mm
2nd	Black with irr.yellow marks	Black	5.5-11 mm
3rd	Orange, nearly crown-shaped markings	Black (as wide as body)	10-15.5 mm
4th	5 pairs of blue spots followed by 6pairs of brick red spots	Yellow-mottled with black markings	15-24 mm

INSTAR	SIZE
I	MINIMUM
	MAXIMUM
II	MINIMUM
	MAXIMUM
III	MINIMUM
	MAXIMUM
IV	MINIMUM
	MAXIMUM
V	MINIMUM
	MAXIMUM
VI	MINIMUM
	MAXIMUM

If no larvae are found, then you will need to use foliage development to decide when to start treatment. Select a preferred host tree and begin treatment when leaves have opened one-third to one-half of their normal size.

Table 18-3 contains a planning calendar showing a timeline for accomplishing specific events. If questions arise when planning a control project, contact Science and Technology (Otis Methods Development Center). They are a resource on control projects.

Gypsy Moth Planning Calendar

TABLE 18-3: Planning Calendar for Gypsy Moth Activities

Date:	Event / Task:
November - December	PPQ, PHD contacts State officials to determine presence of endangered species
December 1	Conduct State Survey Committee meeting to review delimiting trap data and do the following: ◆ Determine size of (potential?) treatment blocks ◆ Determine lead agency for control project
December 15	State agencies meet (for example, Agriculture, Parks Commission, Natural Resources, Forestry, Conservation, and any other group that may be involved in control activities) Complete Compliance Agreements
December 31	Determine funding commitments
January - February	Hold public meetings Write draft of site–specific Environmental Assessment (EA) Contact Federal Aviation Administration to get fly over approval when aircraft are used
February 15	Draft site-specific EA due in Riverdale (Unit 141) with a copy to Domestic and Emergency Operations (DEO)?
February 16 – March 5	Draft EA reviewed in Riverdale and returned with comments
February - March	Complete detailed work plan
March 1	Order insecticide and equipment (maps, balloons) and mark spray blocks on treatment map Contract for aircraft and insecticide
	Final EA and Finding of No Significant Impact (FONSI) (and possibly a Record of Decision - ROD) prepared and forward to Riverdale. (?) approves final EA and forwards to PPQ, Deputy Administrator
March 21	Send EA and FONSI (and ROD?) for Administrator's signature 30 days before treatment
March 21-31	APHIS Administrator reviews and signs ROD. PPQ forwards original document to SPHD and forwards copies of the signed documents to DEO, the PPQ Regional Office performing Environmental Documentation, and the State Cooperator
April 1	Begin treatment anytime after the ROD is signed